



## Update on HEU Downblending in Russia Under the 1993 U.S.-Russia HEU Purchase Agreement

David Thomas NNSA/SAIC



### Russian HEU Down Blending Almost Complete

- The Agreement for the disposition of 500MT of Russian HEU was signed in 1993 and the Purchase Contract between USEC and Tenex was signed in 1994
- To date, 472.6 metric tons of HEU have been converted to LEU and delivered to USEC
- By December 2013, 500 metric tons will be converted to LEU and delivered to USEC
- Deliveries of "WR" LEU from USEC to the fuel fabricators are likely to continue into CY 2015
- Transparency in U.S. facilities continues until all "WR" LEU has been shipped from all sites covered by an Annex to the Protocol



# Completion Commemorations

- Planned completion events and activities
  - November, Port of St. Petersburg, Russia:
    - Observe loading the final shipment of LEU to the United States
    - Reception, tentatively at U.S. Consul General's residence
  - December, Baltimore/Washington Area:
    - Observe the final receipt of LEU at the Port of Baltimore
    - Visit the Peach Bottom Atomic Power Station to commemorate contribution of WR LEU to civilian nuclear energy
    - Reception, tentatively at Russian Embassy in DC
  - Recognition from DOE to U.S. facilities noting their contribution to the success of the Agreement



#### Annex 18

- Annex 18, "Procedures for Concluding HEU
   Transparency Monitoring" was signed February 15 and is now in force:
  - Each U.S. facility must provide a letter at least 90 days before completing "WR" processing
  - Each U.S. facility must provide a letter within 15 days after completing "WR" processing
  - Paducah provides all final documents specified in Annex 17 within 60 days of completing WR processing these documents will be sent to Rosatom



#### Annex 18

- Annex 18 procedures (continued):
  - NMMSS staff provides fuel fabricator documents specified in Annex 6 within 60 days of completing WR processing – these documents will be sent to Rosatom
  - Rosatom may conduct a final monitoring visit to each facility
  - Within 75 days after final document receipt, Rosatom may request clarification of any questions related to the final declarations
  - If no issues have been raised, Annex 6 and Annex 17 shall be deactivated, and a joint statement issued that all activities have been fully completed



#### Annex 18

#### Implementing Annex 18

- End of processing is the date after which each facility "will no longer conduct technological processes pursuant to the Agreement, i.e. the receipt, processing, storage, and shipment of uranium subject to the Agreement"
- Each facility should provide their 90 and 15 day notices to the NRC, which will in turn notify DOE
- DOE will work with each facility and the NRC to host any final Russian SMV
- DOE will work with each facility and the NRC to address any questions raised during the 75 day review period



#### Closeout Timeline

- When will all "WR" LEU be out of monitored facilities?
- At Paducah:
  - Final shipment of "WR" LEU will be received in 2013
  - USEC anticipates that the last shipments of WR to the fuel fabricators will be completed in 2015
- At the fuel fabricators:
  - Final shipments of "WR" LEU will be received in 2015
  - When will all of the "WR" material be fabricated into fuel assemblies and shipped from each site to a power reactor?
  - We are open to suggestions for expediting the completion of WR processing at the fuel fabrication facilities